

UNITED STATES PATENT AND TRADEMARK OFFICE

Un

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/561,552	03/20/2006	Hidetoshi Nishikawa	19415-005US1 PCT-04R-155/	9795	
	03/20/2006 Hidetoshi Nishikawa 7590 11/26/2007 ICHARDSON P.C. 1022	EXAMINER			
P.O. BOX 1022			TAN, VIBOL		
MINNEAPOLIS, MN 55440-1022			ART UNIT	PAPER NUMBER	
				2819	
				•	
			MAIL DATE	DELIVERY MODE	
			11/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Best Available Copy

	Application No.	Applicant(s)
	10/561,552	NISHIKAWA, HIDETOSHI
Office Action Summary	Examiner	Art Unit
	Vibol Tan	2819
The MAILING DATE of this communication app	ears on the cover sheet w	ith the correspondence address :
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.	ATE OF THIS COMMUNI	CATION.
 If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). 	, cause the application to become Al	BANDONED (35 U.S.C. § 133).
Status	1	
1) Responsive to communication(s) filed on 30 O	<u>ctober 2007</u> .	
2a)⊠ This action is FINAL . 2b)☐ This	action is non-final.	
3) Since this application is in condition for allowar	nce except for formal mat	ers, prosecution as to the merits is
closed in accordance with the practice under E	x parte Quayle, 1935 C.E	. 11, 453 O.G. 213.
Disposition of Claims		en e
	• • • •	A phonons
4) Claim(s) 1 and 3-18 is/are pending in the application		NISI ÎKAWA, HIDETOSHI
4a) Of the above claim(s) is/are withdray	wn from consideration.	7100 1110 1110 110 110
5)⊠ Claim(s) <u>1,3-8 and 12-17</u> is/are allowed.	. •	The second secon
6)⊠ Claim(s) <u>9-11 and 18</u> is/are rejected.		1,2019.
7) Claim(s) is/are objected to.		th the correspondence address
8) Claim(s) are subject to restriction and/or		ONTH(S) OR THIRTY (30) DAYS,
Application Papers		Albert
	C	and the second of the second o
9) The specification is objected to by the Examine	• • •	THE from the making done of this communication.
10) The drawing(s) filed on 30 October 2007 is/are:	· ·	
Applicant may not request that any objection to the o		
Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Ex		
riority under 35 U.S.C. § 119		the state of the s
12)⊠ Acknowledgment is made of a claim for foreign a)⊠ All b)□ Some * c)□ None of:	priority under 35 U.S.C. §	1,19(a)-(d) or (f).
1. Certified copies of the priority documents	s have been received.	
ωξ + 2. ☐ Certified copies of the priority documents		pplication No
3. Copies of the certified copies of the prior		
application from the International Bureau		
* See the attached detailed Office action for a list	, , , ,	received.
•	·	
Lib. 1. Strandard		The state of the s
The Samuel Commence of	en de la companya de	
One of the state o	t the second of	Part the reserve of
ttachment(s)		
Attachment(s)) Notice of References Cited (PTO-892)	4) 🔲 Interview S	Summary (PTO-413)
Attachment(s)) Notice of References Cited (PTO-892) DNotice of Draftsperson's Patent Drawing Review (PTO-948)	4) ☐ Interview S Paper No(s 5) ☐ Notice of I	Summary (PTO-413)
Attachment(s)) Notice of References Cited (PTO-892)	Paper No(s 5) Notice of I	Summary (PTO-413)

Application/Control Number:

10/561,552 Art Unit: 2819 Page 2

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 2. Claims 9, 10 and 18 are rejected under 35 U.S.C. 102 (a) as being anticipated by Applicant's admitted prior arts in Figs. 11-12.

In claim 9, Figs. 11 and 12 of Applicant's admitted prior art teaches, a semiconductor integrated circuit device comprising an output buffer circuit (Fig.11) composed of a logic gate (NO1) that receives data (DATA) and a driver transistor (Tx) that receives, at a control electrode (gate of Tx) thereof, an output from the logic gate (output signal from NO1) and that is driven according to the output from the logic gate, wherein there are provided, within the output buffer circuit, a plurality of transistor switches (S1 in Fig. 11 or in Fig. 12) that have different on-state resistances (depends on selection signal) and that are connected in parallel (Fig. 12) between the output (output from NO1) of the logic gate and the control electrode of the driver transistor (the gate of Tx), and wherein one of the plurality of transistor switches is turned on to switch a rate of change (resistance value) of an output of the driver output transistor.

In claim 10, Figs. 11 and 12 of Applicant's admitted prior art further teaches the semiconductor integrated circuit device according to claim 9, wherein, when the transistor switches are composed of a first transistor switch (Tn in Fig. 12) and a second

raing to the output from the logic gate,

curcuit, a plurality of transistor

um mate resistances (dopends

Application/Control Number:

10/561,552 Art Unit: 2819

(d) A par.

Page 3

transistor switch (Tp) and an on-state resistance of the first transistor (when the selection signal is at logic high) switch is higher than an on-state resistance of the second transistor switch (when the selection signal is at logic low), if an operation frequency of the output buffer circuit is low (operates at low speed), the first transistor switch is turned on (Tn is conducting) and the second transistor switch is turned off (Tp is not conducting), and if the operation frequency of the output buffer circuit is high (operates at high speed), the first transistor switch is turned off (Tn is not conducting) and the second transistor switch is turned on (Tp is conducting).

Claim 18 corresponds to detailed circuitry already discussed similarly with regard to claim 10.

Claim Rejections - 35 USC'§ 103 "Sastor (when the

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the (Tp invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior arts.

In claim 11, Figs. 11 and 12 of Applicant's admitted prior art teaches all claimed features the semiconductor integrated circuit device according to claim 9; with the exception of teaching wherein by making MOS transistors constituting each transistor switch have different gate widths and different gate lengths, the transistor switches are made to have different on-state resistances. However, it would have been obvious to

Application/Control Number:

10/561,552 Art Unit: 2819 Page 4

one ordinary having the skill in the art at the time the invention was made to make MOS transistors constituting each transistor switch have different gate widths and different gate lengths, the transistor switches are made to have different on-state resistances, since such modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Therefore; it would have been obvious to one ordinary skill in the art at the time of the invention was made to select different gate widths and gate lengths of the transistors switches for the prior art circuit in Figs. 11 and 12, as a matter of design choice depends on system involved.

5. Claims 1, 3-8 and 12-17 are allowable over the prior arts of record. Claims 1, 3-8 and different

Response to Arguments Frant on-state resistances,

- 6. Applicant's arguments with respect to claim 9-11 and 18 have been considered to but are most in view of the new ground(s) of rejection.
- In light of further consideration, the prior art in Figs. 11 and 12 anticipates all claimed features of amended claims 9, 10, and new claim 18; and wherein claim 11 is being obvious of Figs. 11 and 12 of the prior art.
- 7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP

Application/Control Number: 10/561,552
Art Unit: 2819

acad visor. Ret

Page 5

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

s coestful the schminer's

aday (7.42) AM-4:30 PM).

Best Available Copy

Application/Control Number:

10/561,552 Art Unit: 2819 Page 6

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VIBOL TAN PRIMARY EXAMINER

Page 6

The state of the s

concrete information

N or 571-272-1000.